

RESPONSE UNDER 37 C.F.R. § 1.116  
U.S. Appln. No. 10/060,148

Halter in view of Anzai (U.S.P. 4,713,550). Claim 8 has been rejected under 35 U.S.C. § 103 as being unpatentable over Halter in view of Ushio (U.S.P. 6,489,624). Claims 6 and 9 have been rejected under 35 U.S.C. § 103 as being unpatentable over Halter. Applicant submits the following comments in traversal of the prior art rejections.

The Examiner contends that Halter teaches each feature of independent claim 1. The rejection is not supported for at least three reasons.

First, claim 1 describes edge detection based on a difference between two types of information, the two types of information including information of illuminating light which is led to the light detector through the edge and illuminating light which bypasses the edge and is led to the light detector. The Examiner primarily relies on Fig. 8 of Halter to teach basic elements of the claims. However, for the above-referenced recitation, the Examiner contends that Halter teaches this feature with reference to Fig. 3. It is not permissible for the Examiner to combine alternative and discrete embodiments of a reference without a suggestion to do so in the references. In re Kramer, 18 USPQ2d 1415, 1416 (Fed. Cir. 1991).

Second, the Examiner's reliance on elements 13.1 and 13.3 do not correspond to light sensors but to convex lenses. Therefore, the rationale of the rejection is defective.

Third, no embodiment of Halter uses a first type of light information that goes through the edge and a second type of light that bypasses the edge. In each embodiment of Halter, the illustrated light path (indicated by a chain line) passes through the edge of object K. See Fig. 4 and Fig. 8. Therefore, it is clear that Halter does not use light information that bypasses the edge. Rather, the light that is incident to the edge is measured at two locations due to different

RESPONSE UNDER 37 C.F.R. § 1.116  
U.S. Appln. No. 10/060,148

light effects that occur at the edge. The ratio of the measured light amounts at the two locations due to passage through the edge permits determination of an edge or absence thereof. See Halter, col. 2, lines 18-48. The mere fact that the measurements are made at two positions does not require the light to be formed from light incident on an edge portion and light bypassing the edge as claimed. Rather, the refractive or diffractive properties at the edge only are used by Halter. Therefore, the Examiner's anticipation rejection of claim 1 is not anticipated for at least these reasons.

Because independent claims 11 and 16 include similar features, claims 11 and 16 are patentable for the reasons set forth above for claim 1. The remaining claims are patentable based on their dependencies. The secondary references of Anzai and Ushio do not make up for the deficiencies of Halter.

In view of the above, Applicant submits that claims 1-17 are in condition for allowance. Therefore it is respectfully requested that the subject application be passed to issue at the earliest possible time. The Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary.

RESPONSE UNDER 37 C.F.R. § 1.116  
U.S. Appl. No. 10/060,148

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

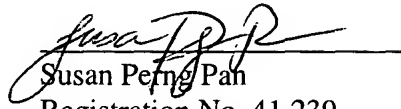
Respectfully submitted,

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

WASHINGTON OFFICE

**23373**

CUSTOMER NUMBER

  
Susan Perng Pan  
Registration No. 41,239

Date: October 14, 2003